

## **METHOD AND ARCHITECTURE FOR INTEGRATED CIRCUIT DESIGN AND MANUFACTURE**

### **Abstract**

[72] A system for integrated circuit (IC) design. A structural multi-project wafer  
5 (SMPW) comprises a plurality of pre-manufactured and pre-validated functional blocks.  
The SMPW is pre-fabricated up to a contact layer so that a user can customize and  
program different blocks of the SMPW to the user's requirements. An SMPW provider  
maintains an inventory of SMPWs. If one of the SMPWs can meet all of a user's IC  
design requirements, or can serve an intermediate step in a user's IC design process, such  
10 as market/concept validation or IP validation, the SMPW is provided to the user. The  
user can then proceed directly to production using a streamlined design flow having a  
very short cycle time of 1-3 months. Otherwise, the user proceeds to production using a  
normal design flow having a much longer cycle time.